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*USAINSCOM Regulation 105-14

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INTELLIGENCE AND SECURITY COMMAND
Arlington Hall Station
Arlington, Virginia 22212

USAINSCOM Regulation
No. 105-14

1 October 1981

Communications-Electronics
TACTICAL DIRECTION FINDING (DF) FLASH AND REPORT COMMUNICATIONS PROCEDURES (U)

The word "he" when used in this publication represents both the male and female genders. Any exception to this will be noted.

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SECTION I
GENERAL (U)

1. (U) PURPOSE. This regulation provides standard criteria for communications procedures for use on tactical DF nets. Local commanders are authorized to publish detailed local communications procedures in the form of standing operating procedures, provided the basic instructions outlined herein are followed.
2. (U) SCOPE. This regulation applies to all US Army Intelligence and Security Command (USAINSCOM) organizations and units engaged in or responsible for DF operations. Where conflict exists with other documents concerning communications procedures, the instructions contained herein will apply for USAINSCOM tactical DF nets.

* This regulation supersedes USAINSCOM Regulation 105-14, 27 February 1974, including change 1.

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SECTION II OBJECTIVES (U)

3. (U) STANDARDIZATION. Normally, two distinctly separate circuits will be used for DF net communications. These circuits are commonly referred to as "Flash" and "Report." The reason for separate circuits is to permit uninterrupted flash operation. The report circuit is used for bearing reports and administrative traffic. In certain instances it may be necessary to temporarily conduct flash and report operations on the same circuit in a net or on individual links within the net. These deviations are discussed further in sections III and IV.

4. (U) APPROVAL FOR DEVIATION. To maintain standardization, requests for deviations from normal operations on a permanent basis will be forwarded through command channels to this Headquarters, ATTN: IAOPS-SEI, for approval. However, in time of emergency, interim approval may be granted by the local commander.

SECTION III CONTINUOUS WAVE COMMUNICATIONS (U)

5. (U) GENERAL.

a. (U) Transmitting Techniques.

(1) (U) The attainment of reliability, security, and speed depends largely on the operator. It is essential that he be well trained, maintain circuit discipline, and thoroughly understands his responsibilities.

(2) (U) Adherence to prescribed procedures is mandatory. Unauthorized departures or deviations from prescribed procedures create confusion, reduce reliability, and tend to nullify security precautions.

(3) (U) The following basic rules are essential to transmission security and shall be strictly enforced on all DF communications circuits within the USAINSCOM.

(a) (U) No transmission shall be made which has not been authorized by proper authority.

(b) (U) The following practices are specifically forbidden:

Violation of radio silence.

Unofficial conversation between operators.

Transmitting without permission.

Excessive tuning and testing.

Transmitting the operator's personal sign in the clear.

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Unauthorized use of plain language.

Use of other than authorized procedures signs (PROSIGNS) and operating signals.

Use of other than authorized plain language in place of applicable PROSIGNS or operating signals.

Use of profane, indecent, or obscene language.

Use of excessively long call-up.

(c) (U) The following practices are to be avoided:

Use of excessive transmitting power.

Excessive time consumed in changing frequency or adjusting equipment.

Transmitting at speeds beyond the capabilities of receiving operators.

(4) (U) Each character will be transmitted clearly and distinctly.

(5) (U) Accuracy in transmission is far more important than speed especially with respect to flash missions and bearing reports. The difference in time required to transmit a message at 12 words per minute and that required to transmit the same message at 18 words per minute is slight when the length of the entire transmission is considered. The time saved by high speed transmission can be nullified if additional time is required for repetitions.

(6) (U) The speed of transmission will be governed by receiving conditions and the capabilities of the receiving operator(s).

(7) (U) When deemed advisable, the net control station may prescribe the speed of transmission on a circuit and/or the qualification of the operators to be employed during specific periods. However, in no case will the prescribed transmission speed exceed 18 words per minute.

(8) (U) Speed keys will not be used on USAINSCOM DF circuits.

b. (U) PROSIGNS. PROSIGNS consist of one or more letters which are used to facilitate communications efficiency by conveying, in a condensed standard form, certain frequently used orders, instructions, requests or information. The PROSIGNS listed in appendix A will be used for DF communications by USAINSCOM units.

c. (U) Operating Signals. Operating signals consist of the "Q" and "Z" codes. These codes provide a rapid and efficient means of transmitting often used directives and requests. Annex F, USSID 103 contains a list of Special Operating

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Signals which are authorized for use on US Army DF communications circuits. Since Annex F, USSID 103 contains only the signals which are unique to DF operations, a supplementary list of authorized international signals has been included as appendix B. Theater headquarters may authorize the use of additional "Q" and "Z" signals from Allied Communication Publication 131 (B) by their subordinate units as required. In the event of a misunderstanding in communications signals, unclassified "Q" and "Z" signals will not be used to explain or modify special operating signals contained in Annex F, USSID 103.

d. 

(1) 

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(3) 

6. (U) REPORT CIRCUIT OPERATION.

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[REDACTED]

b. (U) Assumption of Net Control Functions.

(1) [REDACTED]

(2) [REDACTED]

(3) [REDACTED]

c. [REDACTED]

d. (U) Calling.

(1) (U) All transmissions on the report circuit shall be preceded by call-signs. Callsigns are initiated by unit Communications and Electronics Operating Instructions (CEOI).

(2) (U) When contacting outstations the control station may initiate a single call to individual stations, a multiple call to selected stations, or a net call. In any case, outstations shall reply in the order prescribed.

(3) (U) Only the radio station callsigns assigned by the appropriate command shall be used in calling and answering.

(a) (U) Single call: RY423 DE BF645 K.

(b) (U) Multiple call: A6AEI BL72P J2PYN DE BF645 K (NOTE: Stations shall answer in the order called.)

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(c) (U) Collective call (K4945 represents the "net" callsign):

To all addressees: K4945 DE BF645 K (NOTE: Stations shall answer in alphabetical and numerical order, or in an order designated.)

Exempting one station: K4945 XMT 3TWD2 DE BF645 K.

(4) (U) Under difficult operating conditions, the callsigns may be transmitted twice. For example: K4945 K4945 DE BF645 BF645 K.

(5) (U) Before transmitting, an operator shall listen to the activity on the circuit to ascertain that his transmission will not cause harmful interference to transmission already in progress. If such interference is likely, the operator shall wait until the first break in transmission before keying.

e. (U) Answering.

(1) (U) In answering a preliminary call, stations shall transmit the identification of the calling station, the PROSIGN DE, the answering station, and appropriate PROSIGNS, e.g., K, AS, AR, etc. After initial contact has been established and when no confusion may result, station may answer without the identification of the calling station.

(a) (U) Complete answer: BF 645 DE BJ2PE K.

(b) (U) Abbreviated answer: DE BJ2PE K.

(2) (U) When answering or receipting in response to a collective or multiple call, stations shall answer or receipt in alphabetical and numerical order or in an order designated. If desired, net control may specify a fixed order other than alphabetical and numerical for answering a collective call.

(3) (U) If any station fails to answer in proper sequence when a multiple or collective call is employed, the next station in sequence answers after 5 seconds. The station which fails to answer in proper order must wait until all other stations have answered or have had time to answer.

(4) (U) When a station has failed to answer in sequence, then fails to answer within 5 seconds after all other stations have had time to answer, the calling station shall initiate a separate call to contact the station.

(5) (U) When any station included in a collective or multiple call is specifically directed to answer, no other station included in that call may answer until instructed to do so.

(6) (U) When a station hears a call without being certain for whom the call is intended, the station shall not answer until the call has been repeated and understood.

(7) (U) When a station is called but is uncertain of the callsign of the

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calling station, it shall answer immediately by transmitting the PROSIGN AA, followed by DE, and its own callsign.

(8) (U) When an answer cannot be obtained from a station called, messages may, in case of emergency, be transmitted blind at the discretion of the local commander. Each message shall be transmitted twice, with PROSIGN IMI separating the first and second transmissions. Subsequent efforts shall be made to obtain a receipt.

f. (U) Authentication.

(1) (U) Experience has shown that communications intrusion and deception are not uncommon in radio net operations. For this reason, the importance of utilizing authentication procedures cannot be overemphasized. The authentication system described below shall be used on all USAINSCOM DF communications circuits for establishing the authenticity of transmissions considered suspect.

(a) 

(b) 




(c) 

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(b) 

(c) 

h. (U) Signal Strength and Readability.

(1) (U) A station assumes that it has a readability of "good" unless otherwise notified. Signal strength and readability reports will not be exchanged unless communications are unsatisfactory.

(2) (U) Readability is the ease with which the incoming signal can be received. This depends on the relative strength of the desired signal as opposed to the undesired signals (interference, static, etc) and on the capabilities of the receiving operator. Readability is indicated by means of an appropriate operating signal (ORK) followed by a numeral. The meaning of the numeral is as follows:

- 1 - Bad
- 2 - Poor
- 3 - Fair
- 4 - Good
- 5 - Excellent

(3) (U) The use of signal strength reports will be limited to those occasions in which the actual signal strength rather than readability is a determining factor. Signal strength reports are particularly applicable when changes have been made in equipment, power, or locations, or other conditions make a test report on signal strength desirable. Signal strength is indicated by means of an appropriate operating signal (QSA) followed by a numeral. The meaning of the numeral is as follows:

- 1 - Scarcely perceptible
- 2 - Weak
- 3 - Fairly good
- 4 - Good
- 5 - Very good

(4) (U) During periods of poor readability the operator may request to have "words sent twice" by using the operating signal QS2.

(5) (U) When it is necessary for a station to initiate test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, these signals will consist of not more than three series of 3Vs followed by a 10-second dash and the callsign of the station.

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Example: BT VVV VVV VVV _____ DE BF645 AR

(10-second dash)

1. (U) Time Used in DF Communications.

(1) (U) Greenwich Mean Time (ZULU) will be used in all DF net operations. Time will be recorded to the nearest minute.

(2) (U) On request only, time signals will be sent by net control, via the report circuit.

(3) (U) The time signal transmission will consist of a call, the operating signal ZUA, and the ZULU time transmitted twice. The numerals indicating the time will be followed by a 5-second dash terminating exactly at the time indicated. For example: K4945 DE BF645 ZUA 1845 IMI 1845 (5-second dash) AR.

7. (U) FLASH CIRCUIT OPERATION.

a. ~~(S)~~ [REDACTED]

(1) ~~(S)~~ [REDACTED]

(2) ~~(S)~~ [REDACTED]

(3) ~~(S)~~ [REDACTED]

(4) ~~(S)~~ [REDACTED]

(5) ~~(S)~~ [REDACTED]

(6) ~~(S)~~ [REDACTED]

b. ~~(S)~~ [REDACTED]

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d. ~~(S)~~ [REDACTED]

(1) ~~(S)~~ [REDACTED]

(a) ~~(S)~~ [REDACTED]

(b) (U) Frequency group.

(c) (U) Callsign group.

(d) (U) Preliminary tracking group.

(2) ~~(S)~~ [REDACTED]

(a) ~~(S)~~ [REDACTED]

(b) ~~(S)~~ [REDACTED]

e. ~~(S)~~ [REDACTED]

(1) ~~(S)~~ [REDACTED]

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normal flash except that the tracking is not transmitted and the tip-off is terminated immediately following the repetition of the mission data. It is the responsibility of the tip-off station to record all available data on the desired transmission and furnish the information to net control, if requested.

(3) (C) [REDACTED]

g. (U) Alert Brevity Groups.

(1) [REDACTED]

(2) [REDACTED]

(a) (C) [REDACTED]

(b) (C) [REDACTED]

(c) (C) [REDACTED]

(d) [REDACTED]

(e) [REDACTED]

Section IV OFF-LINE TELEPRINTER COMMUNICATIONS (U)

8. (U) GENERAL. Off-line teleprinter communications provide for reliability and speed of transmission.

a. (U) Communications Procedures. Flash and report circuits are utilized. However, the communications procedures used will depend on the facilities available within each net.

b. (U) Circuit Discipline. Circuit discipline and security practices applicable to other USAINSCOM DF communication circuits apply to off-line communications.

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(a)

(b)

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[illegible]

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG'S BACK

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG'S BACK

BT INT ZBZ K

g. (U) Time Signals. Time signals will be sent by NCS via the report circuit upon request only.

10. (U) FLASH CIRCUIT OPERATION.

a. (U) Description. The flash circuit will normally be a "send only" circuit utilized by net control, alternate net control or be designated flashing stations, and will normally be reserved exclusively for the transmission of flashes.

b. (U) Operation. Operation of the flash circuit will be in accordance with the procedures applicable to CW operations; however, the flash heading need only be sent once.

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Appendix A

PROSIGNS (U)

PROSIGNS listed below will be used for DF CW communications by units of the command. A line over two or more letters indicates that overscored letters are to be transmitted as a single character.

a. (U) \overline{AA} (unknown station). \overline{AA} is used in lieu of a callsign when establishing communications with a station whose callsign is not known or is not recognized.

b. (U) \overline{AA} (all after) and \overline{AB} (all before). These PROSIGNS are used after IMI and certain operating signals to identify a portion of a message.

c. (U) \overline{AR} (end of transmission). This PROSIGN means "this is the end of my transmission to you and no response is required or expected."

d. (U) \overline{AS} (wait).

(1) (U) \overline{AS} , made during a transmission and without an ending sign, indicates a short pause.

(2) (U) \overline{AS} followed by \overline{AR} means "you are to wait" or "I am obliged to wait," as applicable.

(3) A station having received \overline{AS} will wait for K before transmitting unless in the meantime the station has a high precedence message to transmit or it appears to have been overlooked.

e. (U) B (more to follow).

(1) (U) In the final instructions, B means "more to follow."

(2) (U) In the final instruction, B followed by a callsign means "more to follow to the station indicated."

(3) During a transmission, B followed by a numeral means "more to follow: total number of groups transmitted thus far is as indicated."

f. (U) \overline{BK} (Break-in signal). \overline{BK} is used to break the transmission of another station in the net.

g. (U) \overline{BT} (long break). \overline{BT} is used to indicate the separation between the text and other portions of a message.

h. (U) \overline{CT} (alert signal). \overline{CT} immediately preceding a transmission, serves as an alert or starting signal.

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1. (U) DE (from). DE is used only in the call-up and means "this transmission is from the station whose designation follows."

j. (U) EEEEEEEE (error).

(1) (U) To correct an error, a succession of eight or more Es is transmitted and means "an error in transmission has just been made." In correcting errors, the error sign will be followed by the last group, PROSIGN or operating signal correctly sent. The operator then continues with correct version. (The phrase, "eight or more Es" is intended to facilitate standardized operations and shall not be construed to permit transmission of an excessive number of Es. Operators should restrict the number of Es to a range of 8 to 12.)

(2) (U) To cancel a transmission while in progress, a succession of eight or more Es followed by the PROSIGN AR means "this transmission is in error; disregard it."

k. (U) HM (emergency silence). Emergency silence may be imposed or lifted by a station only when authorized by competent authority. The transmission which imposes emergency silence, lifts emergency silence, or calls a station during a period of emergency silence.

(1) (U) Stations do not answer or receipt for a transmission imposing emergency silence (provided the authentication is correct). Thereafter, the imposed radio silence will be strictly observed unless otherwise directed by competent authority.

(2) (U) HM transmitted three times means "cease radio transmission immediately. Silence will be maintained until directed to resume."

(a) (U) Example of NCS imposing emergency silence on the flash circuits:

CT CT HM HM ZNB3 EM V AR

(b) (U) Example of NCS imposing emergency silence on a report circuit whose collective callsign is K4945:

K4945 K4945 DE BF645 HM HM HM ZNB3 EN J AR

(3) (U) HM transmitted three times and preceded by ZUG (negative) means "emergency silence is lifted; resume normal operations."

(a) (U) Example NCS lifting emergency silence on a report circuit whose collective callsign is K4945:

K4945 K4945 DE BF645 ZUG HM HM HM ZNB3 EO C

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IMI ZUG HM HM HM ZNB3 EO C K

NOTE: Upon resuming normal operations, each station will, in turn, contact net control and provide proper authentication.

(b) (U) Example of NCS lifting emergency silence on the flash circuit:

CT CT ZUG HM HM HM ZNB3 EP S IMI ZUG HM HM HM ZNB3 EP S AP

1. (U) II (separative sign). This PROSIGN, written as a hyphen, is transmitted to preclude error in group separation by the receiving operator.

m. (U) IMI (repeat). IMI means "repeat, or I am going to repeat, a message or portions of a message as indicated."

(1) (U) IMI without identification data means "repeat the indicated portion of your transmission."

(2) (U) IMI followed by identification data means "repeat the indicated message of your transmission."

(3) (U) IMI sent between the first and second transmission of a message means "I am going to repeat this message."

(4) (U) IMI cannot be used to obtain a repetition of a message or a portion thereof for which a receipt has been given. A procedural message, containing an operating signal, will be used for this purpose.

(5) (U) IMI shall not be used to correct an error in transmission.

n. (U) INT (interrogatory).

(1) (U) INT preceding operating signals or other PROSIGNS indicates that the transmission is in the form of a question.

(2) (U) INT preceding a portion of a message means "is my reception of this correct?"

(3) (U) INT cannot be used to question any part of a message for which a receipt has been given. A procedural message, containing an operating signal will be used for this purpose.

o. (U) IX (execute to follow). The uses of the "execute to follow" and "execute" PROSIGNS are explained in paragraph 7e(4), Section III.

p. (U) K (invitation to transmit). K means "this is the end of my transmission to you and a response is necessary."

q. (U) R (received).

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(1) (U) R preceded by INT means "have you received my last transmission?"

(2) (U) R means "I have received your last transmission."

(3) (U) R preceded by INT and followed by identification data means "have you received the message indicated?"

(4) (U) R followed by identification data means "I have received the message indicated."

r. (U) XMT (exempt). XMT means "the station or addressee immediately following is exempted from the collective call or address."

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Appendix B

INTERNATIONAL "Q" AND "Z" OPERATING SIGNALS RECOMMENDED FOR USE AS SUPPLEMENT TO USSID 103, ANNEX F (U)

*QAP	QRU	QTR	ZDB	*ZKA	ZTE
QBM	QRV	QUC	ZDE	ZKJ	ZTF
QCB	QRW	ZAA	ZDF	ZKK	ZTG
*QCS	*QRX	ZAC	ZDJ	ZKL	ZUA
QDB	*QRZ	ZAD	ZDK	*ZKV	ZUE
*QIF	QSA	ZAE	ZDM	ZNB	ZUC
*QLH	QSB	ZAJ	ZDN	*ZNC	ZUD
*QMH	QSD	ZAQ	ZDO	ZND	ZUE
QRA	*QSI	ZAX	*ZDQ	ZNQ	ZUG
QRH	QSL	*ZAY	ZEC	ZOB	ZUH
QRI	*QSN	ZBK	ZEH	ZOD	ZUJ
QRK	QSO	ZBL	ZEK	ZOF	ZWF
QRL	*QSV	ZBO	ZES	ZOG	ZWG
QRM	*QSX	ZBP	ZEW	ZPC	ZWH
QRN	*QSY	*ZBV	ZFH	*ZRE	
QRQ	QSZ	*ZBW	ZFI	*ZRF	
QRS	QTA	*ZBX	ZGF	*ZRG	
QRT	QTB	ZDA	ZGN	ZTC	

*When frequency must be indicated, code letters will be used (in lieu of the actual frequency).

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